

Lee (Benj)

DIFFERENTIATION THE TEST OF CIVILIZATION.  
THE EDUCATION OF THE SPECIALIST.

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ANNUAL ADDRESS

DELIVERED BEFORE THE

AMERICAN ACADEMY OF MEDICINE,

AT BALTIMORE, MARYLAND,

OCTOBER 28th, 1884,

BY

BENJAMIN LEE, A.M., M.D., PH.D.,

PRESIDENT OF THE ACADEMY.





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#### FELLOWS OF THE ACADEMY:—

The subject of Medical Education is of such paramount importance among the objects of our organization, that no apology is needed for again adopting it as the theme of the address which our constitution makes it incumbent upon your president to deliver at the close of his year of office. Whatever topics of interest from a purely scientific point of view other members may contribute—and I look with pride upon the rich and varied feast spread upon our programme for the present meeting—he at least cannot go wrong if he treats of some matter connected with that which is our *raison d'être*, the prime apology for our existence. And, indeed, to those of us who meet from year to year to consult together in fraternal communion as to the best means of promoting the elevation and restoring the well-nigh lost dignity of our beloved profession, the subject can never become trite:—

“Age cannot wither it nor custom stale its infinite variety.”

Until every practitioner of the healing art in this broad land is a gentleman and a scholar as well as a doctor, and until the gates of our Medical Schools are barred to all others, so long shall we, Fellows of the American Academy of Medicine, continue its discussion with lively interest and unabated zeal.

I shall invite your attention for a few moments this evening to a single one of the many problems which court our investigation in this broad field, namely—the *Education of the Specialist*. There seems to me to be an especial fitness in taking up its con-



sideration in this good city of Baltimore, in which specialists may be said to have first received official recognition: for I find in that wonderful compilation, the "Medical Annals of Baltimore,"—"monimentum ære perennius," a work which reflects equal honor on its author, on the Society which published it, and on that portion of our profession of whose virtues and heroism as well as scientific attainments and discoveries it is the imperishable record—the following entry:—"1805, June, Medical and Chirurgical Faculty of Maryland meet. They endorse vaccination. The Faculty offer to grant licenses to Oculists if found competent." Two additional facts appear in this brief memorandum which I may not omit to notice:—First, that before any of us were born, this youthful commonwealth was so civilized as to have a Medical Examining Board, without whose license no one might venture to practice; and, Secondly, that that Board was so enlightened as to make competence the condition of the right to practice. Her great sister Commonwealth of Pennsylvania may well hang her head in shame, remembering that she has not even yet attained this degree of legislative wisdom. Further, the first college for instruction in a specialty (that of Dentistry), ever established in the world was founded in this city, nearly half a century ago. And, finally, if I am not misinformed, a physician does not to-day incur the odium of his professional brethren—less intense only than the *odium theologicum*—if, in this city, he places upon his card or his sign, in addition to the announcement that he is prepared to treat disease, the qualifying announcement that he modestly confines his efforts to the treatment of certain classes of disease. Thus far by way of preface.

The student of the history of social organization cannot fail to discover that as each nation emerges from barbarism the avocations of its individual members become multiplied, that with increasing knowledge and luxury, the primary, simple avocations subdivide themselves into pursuits, and that, as a further step, these again undergo segmentation into branches and departments, so that what one man formerly did, it takes a dozen to do now. This process is daily going on under our eyes. In the past gen-

eration the political economist was fond of adducing the pin, once made from beginning to end by a single artisan, now passing through a score of hands, as a striking example of the advantage to be attained by assigning each step in the manufacture of even a very simple article to a single individual, who should become absolutely perfect in his particular part of the work.

An instance in point has lately been brought to my attention, which is, perhaps, not so well known, as it is of comparatively recent introduction. A New York merchant, whose business has led him to study closely the manufacture of textile fabrics, writes me that "not only are the different preparatory processes of such manufacture placed in the care of men solely occupied within their special and limited departments, but of late a broader system has come into general practice. Instead of a mill receiving the raw staple in the bale, and delivering the finished product in course of time, and under the control and scrutiny of a general superintendent, it has been found more satisfactory for a mill (making cotton worsteds, for instance), to purchase the yarn already spun by a spinning-mill or yarn spinner, and, after the cloth has been woven, to send it to a dyeing and finishing establishment, making three separate and distinct parties upon whose skill the perfect product depends. This plan," he adds, "is due, in a measure, to a constantly increasing demand for rapid work, and partly to the necessary and logical improvement in the quality of grade in the yarn, and the closer attention given to its possible improvement. The goods, however, are not yet ready for delivery to the retailer. In the city of New York firms have been in existence for some years, whose sole business is to examine, refinish, and repack goods referred to them by the wholesale jobbers. Cloths received by them are carefully graded and examined in regard to shading, strength, imperfections, etc., and the amount of allowance for damages or imperfections determined. They are then refinished under powerful presses, which set and shrink the fibre, and give the cloth a permanent soft face. They are finally cleaned and repacked, rolled or folded by machinery, when they are in a condition to bear the closest scrutiny of the purchaser."

It is not necessary to multiply examples. Any one who visited the recent electrical exhibition in Philadelphia, could not but have been impressed with the number, variety and minuteness of specific industries which have already been developed in connection with that latest wonder of science, the electric light. The principle meets us and obtrudes itself upon us at every turn. We are compelled to admit, as the result of our own observation and experience, that, as a people progresses in civilization and the cultivation of the arts of life, there is a constant tendency to what political economists call the division of labor in all trades, manufactures and businesses; moreover, experience has taught us that the result of this process is increased skill in handicraft, enhanced perfection of the products of manufacture, and greater facility in barter and sale. So universal is this law in its application, that I think the aphorism which I have ventured to coin as my title—"Differentiation the Test of Civilization"—will hardly be called in question, *so far as the vocations referred to are concerned.*

When we come to the consideration of the learned professions, however, we find that there has always been a respectable proportion of the members of each to whom this process in their own ranks has been distasteful, and who have met it with determined opposition, as calculated to lower the dignity of their calling and the standard of its attainments. This feeling has prevailed, I may add, to a much greater extent in this country than in Europe. Compare, for instance, the legal profession in America with that of England. "In this country," writes a member of the Philadelphia Bar, "it is usual for the attorney or counsellor-at-law to fulfill every function through the whole scale of legal practice. In England, on the contrary, legal practitioners are divided broadly into barristers, who are admitted within the bar in court, and those who have not that privilege. These latter are divided into attorneys-at-law in common law practice, solicitors in chancery or equity practice, and proctors in the admiralty and ecclesiastical courts. Among the barristers, again, certain privileges belong peculiarly to sergeants-at-law, and Queen's counsel. While, however, in this country there is but one legal grade, in large cities the practice naturally divides



itself into specialties. The broadest line is usually drawn between civil and criminal practice; and in the former, few would pretend to equal authority on questions of real estate, commercial, and equity practice. Patent law is quite a distinct branch, and the enormous patronage of the Pension Bureau claims its share of exclusive attention. In some favored localities many devote themselves almost exclusively to obtaining divorces." Thus it will be seen, that here again, in practice, the universal law asserts itself, though it be ignored in theory.

In matters ecclesiastical the difference of sentiment alluded to is still more noticeable when we place the single minister of nearly all Protestant denominations of our land in contrast with the immense variety of ecclesiastical functionaries and religionists of continental Europe.

In our own profession, while the opportunity for differentiation has been vastly greater, in consequence of the fact that medical science is in its nature progressive and expansive while theology and law are to all intents and purposes completed sciences, the opposition to the formation of specialties has been even more bitter and determined.

It would not be fitting in me, on this occasion and before this audience, to espouse either side of this controversy, although, individually, occupying as I do a sort of neutral territory, I have possibly some advantages for arriving at an unbiased conclusion. I may, however, I trust without offence, at least sum up briefly the arguments of both sides, leaving the verdict in your own hands. And that I may do this in as impartial a manner as possible, I shall adopt the line of thought, and to some extent even the phraseology, of an editorial in a recent number of one of the British medical periodicals, which is committed to neither party. And first, let us view the matter through the spectacles of those who honestly dread the multiplication of special lines of practice, as fraught with evil to our beloved profession. And let it be understood that they who are of this way of thinking are not only a majority of the great body of general practitioners, but that among them are many bright and shining lights, whose opinion is always received with, as it is entitled to, respect.

The prosecution may be divided into three counts:—

First: That the multiplication of specialties will have a narrowing effect on the minds of those who pursue them.

Second: That it will prove degrading to the profession; and

Third: That it will not be for the best interests of the patient.

First, then, it is charged that the mental horizon of a man so confining his field of practice must become narrowed, his conceptions belittled, his character shriveled, his nature dwarfed; that he will no longer be able to take broad, comprehensive, generous views of professional problems; that he will look at truth through a crow quill, or, as one of the Physicians-in-Ordinary to the Household of Her Majesty Queen Victoria, in an address strongly condemnatory of specialism, delivered before the Medical Society of the University of London, in 1882, expressed it, "look at life only as he sees it through a speculum." A great physician, a hero in Medicine, will henceforth become an impossibility, if we are each to grub in our own little garden patch and know nothing outside of it.

Second: It is asserted that the general standing of the profession in the eyes of the public will be lowered by a further continuance of the process of differentiation. That, when "nearly every disease, medical, surgical or gynecological—every condition, organ or function of the body—has its coterie of special professors, their aim will be to influence and attract the public mind more and more, to impress the belief that each subdivision of our art so created should be the sole and exclusive study of a master intellect," and that they are the possessors of such intellects, to the exclusion of the family or general practitioner. That this will rapidly degenerate into an impudent bid for special practice, opening the doors to every species of charlatanry, and making our once grand, noble and comprehensive calling a congeries of petty trades, in which he will be most successful pecuniarily, who blows his own horn the loudest. Furthermore, this exaggerated specialism among the consulting members of the body induces a spirit of restlessness and impatience among patients, in place of the loyal dependence upon the trusted family adviser. The latter suspects that the

specialist, if he call him in consultation, will aim to strengthen this impression. Hence hesitation and distrust upon his part, and, finally, a mutual repugnance, dividing a once harmonious profession into two hostile camps.

Finally: It is feared that the sick and suffering themselves, who, after all, should be the first to be considered in any such question, and who are not mentioned last because of least importance in the minds of the profession—it is feared that they will not fare so well at the hands of the specialist as if they had been contented to remain under the wise care of the family adviser. This too great attention to minutiae will blind a man to the consideration of the general condition of the sufferer; this titling of mint and anise and cummin will lead to neglect of the weightier matters of the law; this intense anxiety to arrive at a diagnosis so exactly accurate that no other specialist can, by any possibility, pick a flaw in it, will leave therapeutics out of the question and the patient out in the cold. The greatest wit of the profession in either continent has said “A wise man sometimes carefully worries out the precise organic condition of a patient, when a very wise man would let it alone and treat constitutional symptoms. The well being of a patient,” he adds, “may be endangered by the pedantic fooleries of a specialist.”

So far the plaintiff! We now summon the defendant and ask him or his counsel to show cause why he should not be inhibited from pursuing a course which is liable to bring the profession into disrepute, degrade the individual character of its members, impair its efficiency and sow dissensions in its ranks. He replies substantially as follows:—

“Specialism is nothing new, strange or foreign. The very existence of medicine itself as a separate profession is a specialty.” There was a time when the lawgiver, the minister of religion and the healer of disease were one. As compared with, and in the eyes of, the general practitioner who is ready to treat every case that comes in his way, the pure physician, the pure surgeon, the obstetrician, and the alienist are specialists in their respective departments. What rule of reason or ethics demands



that the process of differentiation should stop at this point? On the contrary, is it not manifest that the process must continue—may that it ought to continue? “The days of the cyclopedists are over. Nevermore can one man say ‘I take all knowledge to my province.’ As with the whole of Medicine so with each branch of it, and afterwards with minor and secondary branches, the time at length arrives when the accumulation of knowledge and the varieties of skill demanded for its practice are greater than can be acquired by any single man.”

There is a story told of an honest farmer whose opinion was asked of a possible candidate for the presidential chair of this nation, who had resided in the same section of the country with himself. “Well,” said he, “he’s a good feller and some smart; he made a good presidin’ judge in our district; but come to spread him all over the United States, and, I tell you, stranger, he’d be mighty thin.” “Is there one of us,” asks the plunder for specialities, “who can take an honest, comprehensive glance over the whole vast field of medical science and art, and not feel that, disabused over it, he would be *very thin*, and that the result of such an effort on the part of all its votaries would sink the profession to a dead level of mediocrity? If, on the other hand,” he continues, “a man works at one branch until he has mastered it, and finds that his whole energies are required in order to retain his proficiency and advance his knowledge in that one subject—and if he does devote himself to it accordingly—earnestly striving not only to perfect himself in his chosen art but to bring that art itself to a higher state of perfection—then he is a specialist.”

The comparative anatomist tells us that as the living being becomes more specialized in function and more highly differentiated in organ, just in that proportion does it acquire importance and rise in the scale of intelligence in the animal economy. “In like manner,” claims the counsel for the defense, “The specialization of the functions of the social organism must naturally and inevitably be pushed further as the organism becomes more highly developed, as it increases in size and complexity. The



same law of nature which necessitates that in a savage community one man shall be a hunter, another a fisher and a third a maker of weapons, necessitates that in a civilized community one physician shall turn his hand to the division of tendons, another shall penetrate the crystalline depths of the eye, another study diseases of the brain, and yet another perfect himself in the performance of ovariectomy.\* In Medicine, as in every other pursuit, "Differentiation is the test of civilization." As every man is born with physical features in which he differs from his fellows, so he is born with special qualities and aptitudes in which no two men are alike. These qualities and aptitudes will fit him to do certain things better than he does others, and since good work is more remunerative than bad, he will do most what he does best—and since qualities are developed and perfected by exercise, that in which he excels he will tend more and more to excel in—and since the more he excels in one kind of work the more remunerative it becomes, he will tend more and more to confine himself to it.'

Abandoning theory and philosophy, the counsel for the defence, then boldly appeals to facts, and summons his witnesses upon the stand. He asks 'Has not the science of medicine been enriched and the sufferings of humanity been diminished by those who have adopted a special line of work—by a Donders and a Von Graefe, in the domain of Ophthalmology—by a Green, a McKenzie and a Cohen, in the study and treatment of affections of the Larynx—by a Keith, an Atlee, a Wells, in Ovariectomy—by a Thomas, a Tait, a Goodell, in general Gynaecology—by a Sims, a Boseman, in a special department of the last named specialty, by a Dietlrich and a Sayre in Orthopaedics? Have these men degraded or have they not rather contributed to elevate their calling?'

Finally, he quotes from the address, delivered at the International Congress, in Philadelphia, by one of our most distinguished members—the address on "Our Medical Literature"\* as follows: "The specialists are not only making the principal advances in science, but they are furnishing both strong incen-

\* John S. Billings, M.D.

tives and valuable assistance toward the collection and preservation of medical literature and the formation of large public libraries." Here the advocates for the accused rest lifeless, concluding, in the words of the sagacious Gamaliel, "And now I say unto you refrain from these men, and let them alone, for if this counsel or this work be of men,—that is purely artificial, accidental, fortitious,—it will come to nought; but if it be of divine ordering,—that is founded deep down upon an absolute law of our nature,—ye cannot overthrow it."

We have all laughed over the delightful story of the ancient showman with the *Rare show*. One never lives of the picture it calls up. The gaping urchins, with their noses pressed flat and their eyes to the hole, peering through the grony glass into the awful den, and anxiously inquiring, "Please, sir, which is Daniel, and which is the lion?" And the more than Machiavellian wisdom on the face of the old man, as he relieves himself of all responsibility, by replying, "Whichever you please, my little dears; you pays your money, and you has your choice." With equal impartiality, I offer you your choice. Put Daniel and the lion, wisdom and danger upon whichever side of this grave question you feel in conscience bound to place them. But at what conclusion *soever* we arrive, we find ourselves still confronted by two bare facts, standing out in bold relief, settled by the inexorable logic of events:—

First. The specialist is with us.

Secondly. He has come to stay.

If there is a shadow of doubt in the mind of any one present as to the truth of either of these propositions, I think it will be dispelled by a consideration of the following comparison. The announcement of the Jefferson Medical College, of Philadelphia, for the year in which I made one of the 556 students who thronged its crowded amphitheatre, offered lectures by regular professors of the following chairs: 1. The Institutes of Medicine. 2. *Materia Medica* and General Therapeutics. 3. General Descriptive and Surgical Anatomy. 4. Practice of Medicine. 5. Institutes and Practice of Surgery. 6. Obstetrics and Diseases of Women and Children. 7. Chemistry. From Gen-

ber 1st to October 10th, a period of about one full week, extra lectures were announced by these same professors, upon special topics connected with their several departments. These, with the weekly clinics in the amphitheatre, and the clinical lectures of one surgeon and one physician at the Pennsylvania Hospital, constituted the entire course of instruction. The announcement of the University of Pennsylvania for the same year afforded no greater variety. Now, at the end of one generation, allow me to give you a catalogue of the Professorships and Lectureships in the latter institution, as found in the Announcement for 1884.

In addition to the seven regular Professorships of 1853, we find chairs of—8. Clinical Medicine; 9. Clinical Gynecology; 10. General Pathology and Morbid Anatomy; 11. Clinical Surgery.

Clinical Professorships of—12. Diseases of the Eye; 13. Diseases of the Ear; 14. Nervous Diseases; 15. Skin Diseases.

Auxiliary Professorships of—16. Medical Jurisprudence, including Toxicology; 17. Hygiene.

Distinct Demonstratorships and Lectureships on—18. Physical Diagnosis; 19. Mental Diseases; 20. Orthopaedic Surgery; 21. Clinical and Operative Obstetrics; 22. Experimental Physiology; 23. Venereal Diseases; 24. Osteology and Syndesmology; 25. Pathological Histology; 26. Experimental Therapeutics; 27. Normal Histology; 28. Laryngology; 29. Nervous Diseases; 30. Electro-therapeutics.

The solid and conservative character of this Institution is too well known to admit of the supposition that this immense differentiation of its subjects of instruction and of the personnel of its instructors—generally specialists in their respective departments—has been made hastily or without the most careful consideration. Thus made, a return to the system of thirty years ago is not reasonably to be expected.

In view, then, of the probable permanence of specialties, whether we tolerate the specialist as a necessary evil, an outcome of the unsettled, faithless, condition of the times, or welcome him as the ultimate flower of medical culture, our plain duty would seem to be to make the best of him. The question is no longer,

‘How can specialists be suppressed or its limits curtailed?’ but  
 ‘How can this inevitable process of differentiation in our ranks be so guided and controlled as to make it contribute solely to the advancement of our art and the elevation of our profession?’ Hence the problem becomes an urgent one. *What is the proper education for the specialist?* Shall he be as Dr. Hensgen, in his address as President of the American Medical Association, at Richmond, in 1881, tersely put it: “A physician and something more” or shall he be “something less than a physician?” Who can hesitate for a moment as to the appropriate answer to this pertinent question? If there is a professional man on the face of the earth who needs a broad, liberal education, that man is the medical specialist; and the narrower his specialty, the greater the necessity for breadth of preliminary culture. The danger indicated by the opponents of specialism, of the exertion of a narrowing and belittling effort on the mind and character, is a real one. This tendency it would be folly to deny, and I imagine none would be more ready to confess it, or more anxious to fight against it, than specialists themselves. The consciousness of a process of belittlement, of a dwarfing going on in the mind and its range of thought, is not a pleasant one, and the man who is true to his own best interests, and desirous to make the most of himself and of life, will struggle to overcome it. If, however, he has come to the study of his profession directly from the plow, the loom or the anvil, with no mental furnishings other than those occupations could have bestowed, his world bounded by the narrow sphere in which he has moved, his memory enriched by no treasures of history or biography, his mental faculties untrained by the processes of logic or by coping with the difficulties of mathematics, without powers of analysis, of generalization or of observation, he must be simply a mechanic in medicine, as he was before in his craft, “something less than a physician.” Hence I would say, most emphatically, that, for the specialist, even a higher standard of preliminary education would be desirable than is needed for the general practitioner, whose more varied occupations will call for a wider range of study and reading during active professional life. But as it



rarely happens, and to my thinking, should never happen, that the student has determined to devote his life to a particular department before he enters upon his professional education, all that we can ask is that there shall be no lowering of the standard of preliminary education and preliminary examinations because a candidate chooses to say that he does not intend to take up the whole range of medical studies.

This Academy, I take it, is not prepared, in the case of the specialist, any more than in that of the general practitioner, to endorse the action of the largest medical school in the country, which, in its annual announcement, declares, with a *naiveté* truly charming, that "students entering this college are presumed to have the necessary education for undertaking the study of medicine, and hence no preliminary examination is required." In the face of all the astounding facts detailed in the publications of this Academy, in the addresses of my predecessors; of all the humiliating revelations of the army and navy examining boards, as vouched for by our distinguished Vice President, Medical Director Gihon; of all the disclosures of the various State Boards of Health in those States which are sufficiently enlightened to possess such safeguards—in the face, I say, of all this mass of damning evidence to the contrary, these worthy and simple-minded gentlemen *presume* that all students entering their institution have the necessary education for undertaking the study of medicine. Gentlemen, was ever such presumption known?

I take it for granted, then, that there is no dissentient voice to the thesis that a medical specialist should, first of all, be a man of broad, liberal culture, both for his own sake and that of his profession. But, having proved himself a worthy acolyte and entered upon his strictly medical education, is there any portion or branch of the ordinary curriculum which he may dispense with so soon as he has made up his mind to limit his practice to some particular department of the art? I shall reply to this query in the concrete, rather than in the abstract. "Let us take, for instance, the gynecologist who confines himself mainly to the subject of ovarian tumors—a somewhat limited specialty—a

branch of general medicine. He must know, of course, all that is known of ovarian tumors. He must know all their varieties and the natural history of each variety. He must know when each kind begins, when and how, and in what direction, and with what speed it tends to grow; its physical characters; its microscopic structure; its modes of degeneration—in short, its whole biology. Then he must know the physical relations of each variety of tumor to surrounding structures; which structure it displaces, which it destroys, which it incorporates. He must know how each such tumor will affect the structures and the functions of the other pelvic organs with which he has to deal. And when he has learned all this his requirements have but begun. He must now study the life history and all the corresponding particulars of every possible tumor that can grow in surrounding organs, so as to be able to effect a diagnosis. Thus the whole range of gynecology and a large province of general splanchnology becomes incorporated with his specialty. But his knowledge is yet far from sufficient. He must be acquainted with the special reactions that each disease of each of these organs has upon the general condition of the body at large, and unless his special knowledge has a broad foundation on general pathology, it is not merely incomplete or useless; it is, or may very easily be, positively noxious. Pathology cannot, of course, be known without a previous knowledge of physiology, which again necessitates sound anatomical and histological knowledge. The requirements of our specialist are not yet all enumerated. He must be a surgeon as well as a physician. He must be prepared to undertake the greatest operation known to modern surgery, and thus the whole theory of the healing of wounds, with all its ramifications, becomes an essential part of his intellectual furniture, and the manual dexterity and unflinching vigilance of the operating surgeon are added to the accomplishments that are required of him. His specialty is a *thirsty plant*, and must throw out roots far and wide into neighboring tracts of knowledge, or it will droop and die."

As with the gymnologist, so with the oculist, the aurist, the orthopedist, and so on through the list. "Can one member

suffer and not all the members suffer with it? Can the eye say unto the hand I have no need of thee? or, again, the head to the feet, I have no need of you?" The human body is a unit, and he who would understand it in one part must understand it in all. Must, then, the specialist apply himself to acquire each of the old fundamental seven: Anatomy, Physiology, Chemistry, Materia Medica, the Theory and Practice of Medicine, the Theory and Practice of Surgery, and Obstetrics? With one exception, yes; and that exception I found upon the broad, general principle that, while it is necessary for the special student to lay a good foundation, based upon the cardinal principles of his science and art, it is not necessary that he should perfect himself in any specialty but his own. Obstetrics is distinctly a specialty, none the less so because the general practitioner always makes it a part of his study. I cannot see that the hand that is to direct the delicate blade of the cataract knife or the tenotome will perform this function any more skillfully because it has become dextrous in the coarser manipulation of the forceps. Nor do I appreciate the necessity for the student who desires to perfect himself in the mechanism of the voice and the minute anatomy of the larynx, puzzling his brains over the niceties of Carus's curve.

The foundation once thus broadly laid is now ready for the special superstructure. Whether it is better that this should be reared under the fostering care of his medical Alma Mater, or in the halls of a Polyclinic; whether his special course of study should be crowned with a special degree, or a certificate of proficiency, or a license to practice his specialty, are matters still *sub judice*. There is, however, one consideration of great importance which is, I fear, in danger of being overlooked. The diseases which specialists are called upon to treat are, to a very great extent, chronic in their character. But a chronic disease is usually the continuation or sequel of an acute attack. The latter originates, dominates and modifies the former; and an intelligent knowledge of the one is immensely aided by an accurate acquaintance with the course of the other. The special practitioner who has taken pains to become clinically familiar with acute disease, before he enters upon active exclusive practice, will, therefore, possess a

decided advantage over his fellow who knows the disease only as it comes under his hands after months of morbid action have left their impress on the tissues and perverted the functions of the part. Hence a general hospital experience is strongly to be advised after the completion of the college course.

Thus thoroughly furnished at all points; reared in manner from years of association with teachers and students intent, like himself, upon the cultivation of the liberal and humane arts; strengthened in mind by the contests of the intellectual arena; his memory stored with the accumulated learning of the ages in all that pertains to the general understanding of the Science of Medicine, and, finally, superadded to all this, skilled in the exact diagnosis of some particular class of disease, his special senses cultivated to the highest degree of acuteness, armed with instruments of precision and trained to their dextrous use, is it presumptuous to indulge the hope that he, at least, will not justify the apprehensions of those who fear that "danger threatens the profession through the ill-considered adoption of exclusive specialties by physicians."

I shall be satisfying a strong impulse of my own heart, and I trust not presuming too much upon your kind indulgence, if I conclude my remarks with a brief tribute of respect to the distinguished fellow-members of whom death has bereft us during the past year. Rarely is any society called upon to mourn the loss of so many ornaments in so brief a period. Our session had just concluded, you will remember, when we were saddened by the intelligence of the termination of the useful career of our former President, FREDERICK D. LACEY. Gentle in manner, but firm in conviction, of ripe scholarship, a graceful writer and successful practitioner, beloved by his patients and trusted by his brethren, failing health compelled him to leave the fold of his useful labors upon the banks of the Hudson, and seek relief in the kinder clime of Florida. Even there he did not resign himself to idleness, but resumed his ministry of healing among the unfortunates, who, like himself, were exiles from their Northern homes. And so he labored, until called to a higher ministry.



The lamented MARION SIMS, in whose election, as the latest of our five honorary members, we were honoring ourselves not less than him, had probably achieved the most brilliant reputation of any living American surgeon in a special department. On the continent of Europe his name was as familiar as a household word, and the wisest sought his counsel and assistance in their gravest emergencies. Not dazzled, however, by the applause of courts or the friendship of monarchs, he returned to close his eventful life in the land of his birth.

And in what fitting terms shall we speak of GROSS, great by nature, as by name; *anax andrôn*, a king of men, regal in presence, but benign of countenance; authoritative with that authority which is bred of a sense of combined native sagacity, acquired wisdom and conscious power, one of the very few who *could* claim that, in his chosen domain of surgery, "he took all knowledge to his province"; twice crowned by foreign universities with the worthiest honors they had in their bestowment, trusted as a surgeon, sought as a consultant, worshiped as a professor, world-renowned as an author, earth had nothing more to offer him; and so, full of years and of dignities, he wisely put aside his graver cares and sank to rest, like a wearied child.

ELISHA HARRIS. The sense of his loss comes to us like a personal bereavement. Who does not recall his ruddy face, crowned with a wealth of snowy hair, his genial smile and gracious welcome. Choosing Hygieia as his goddess, he was a faithful worshiper at her shrine, and his devotion went not unrewarded. His own city and State installed him in the most important positions in their gift having for their object the protection of the lives and health of their citizens; and there is probably not a State of the Union which has not listened to his earnest unfolding of the gospel of purity and health, and is not to-day profiting by his teachings.

One, too, who had honorably filled the highest military position open to our profession, CHARLES HENRY CRANE, Surgeon General of the United States Army, must be added to the list, having died in harness, in the full vigor of middle age, true to his trust, his calling and his country.

These all have rested from their labors and their works do follow them—follow them in the grateful memories of those whose lives they have prolonged, whose sufferings they relieved, whose burdens they lightened; follow them in the reverent remembrance of their compeers; follow them in streams of knowledge, ever widening and deepening, to bless humanity.

Let us so labor in the fields to which we feel ourselves called, be they broad or be they narrow, that, when the tool falls from our listless grasp, men may be able to say of us as we can honestly say of each of them: WHAT HIS HAND FOUND TO DO HE DID WITH HIS MIGHT.





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